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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,943	03/29/2007	Jan Zimmermann	ZIMMERMANN=3	3059

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EXAMINER	
XU, LING X	

ART UNIT	PAPER NUMBER
1784	

MAIL DATE	DELIVERY MODE
05/13/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,943	ZIMMERMANN ET AL.	
	Examiner	Art Unit	
	Ling Xu	1784	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) *1,2,11 and 12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-5, 7-8, 10, and 13-15* is/are rejected.

7)☒ Claim(s) *6 and 9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 3-5, 10, and 13 stand rejected under 35 U.S.C. 102(b) as being anticipated by Barber, Jr. (US 5,849,052) for the reasons of record set forth in the Office action dated 10/13/2009.

2. Claims 3-5, 7-8, 10, and 13-14 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa (US 2001/0005531) for the reasons of record set forth in the Office action dated 10/13/2009.

3. Claims 3-5, 10 and 15 stand rejected under 35 U.S.C. 102(e) as being anticipated by Flugge et al. (US 2004/0086727) for the reasons of record set forth in the Office action dated 10/13/2009.

Allowable Subject Matter

4. Claims 6 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed on 4/13/2010 have been fully considered but they are not persuasive.

With respect to the cited reference Barber, applicant argues that Barber is directed towards and relates to a substantially different area of technology, in that Barber does not at all contemplate the provision of superhydrophobic coatings, which is a main aspect of the present invention. Instead, Barber forms an article of a polysiloxane binder and abrasive particles (Abstract). There are of course many, many alternatives within the body of the Barber patent, which sets forth a huge basket or shotgun approach, but Applicants do not see anything even broadly suggestive of, let alone anticipatory of, anything other than an abrasive bonded by a polysiloxane.

It should be noted that claim 3 recites a substrate and a coating formed of a composition comprising at least one compound of formula I. Claim 3 or any of its dependent claims does not require that the formed coating to be a superhydrophobic coating.

As stated in the prior Office action dated on 10/13/2009, claim 3 is product-by-process claim. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art,

the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

In this case, according to the specification of the present application, the claimed coating formed of the composition recited in claim 1 is a polysioxane coating, see line 3 on page 4 of the specification. In other words, the starting material for forming the coating is the composition comprising the compound of formula I (the monomer), however, the coating formed from the composition is a final product (after polymerization reaction) of the compound of formula I, and the final product is a polysioxane. As stated in the prior Office action dated 10/13/2010, Barber discloses the filament article comprising the same polysioxane coating as claimed. Barber anticipates the claimed product limitations even through the product disclosed by Barber may be made by a different process or a different starting material.

Applicant also argues that the distinction even applies to Applicants' withdrawn claim 1. In contrast to Barber, who deals with a polysiloxane polymer, the present invention involves monomers for coating according to withdrawn claim 1. In the method, monomers are applied to a substrate (a surface) and are solidified to provide a coated substrate as called for in claim 3, desirably in filament form as called for in claims 4-8.

The Examiner acknowledges that claim 1 recites the composition comprising the monomers (the starting material for the polymerization process to form the coating). However, claim 1 is current withdrawn from further consideration.

With respect to claim 3, as stated above, claim 3 recited a substrate and a coating formed of a composition comprising at least one compound of formula I.

Although the starting material for making the coating is the composition comprising the compound of formula I (the monomer), the coating formed from the composition is a final product (after polymerization reaction) of the compound of formula I, and the final product is a polysioxane. Barber discloses the filament article comprising the same polysioxane coating as claimed. Barber anticipates the claimed product limitations even through the product disclosed by Barber may be made by a different process or a different starting material.

With respect to the cited reference Ogawa, applicant argues that Ogawa does not anticipate any of Applicants' claims.

As stated above and in the prior Office action dated 10/13/2010, Ogawa discloses a substrate comprising a coating formed of a composition comprising a silane surface active agent and the final product of the coating formed of the composition is a polysiloxane. Ogawa also specifies that the silane agent has a formula: CF3-(CF2)n-(R)m-SiXp(OA)3-p, wherein R can be an alkylene group, CF3-(CF2)n-(R)m can be viewed as a substituted alkylene group; X and A each can be an alkyl group (Page 3, [0019]). Specific examples having the same structure as the formula I recited in claim 3 are listed as [0106] and [0107]) on page 6 of Ogawa.

Applicant also argues that, even taking the broadest disclosure of Ogawa, and piecing together bits and pieces from the various Ogawa embodiments (not permissible for a rejection under § 102), there still could not be any inherent anticipation because Ogawa uses a silanol condensing catalyst which requires a hydrogen-free, non-

aqueous solvent, in which water is explicitly excluded. As a rejection based on inherency must be "reasonably certain," and as Applicants' claim 3 and the claims which depend therefrom result from a method performed in the presence of water under carefully controlled conditions, whereas water is excluded from the Ogawa method, it follows that the products must be different. The contact angles reported in Ogawa are much less than the angles obtained in accordance with the present invention. Ogawa uses the surface active agent (a wetting agent), which logically would not provide a superhydrophobic coating as confirmed by the noted differences in the contact angles.

Applicant's arguments are not commensurate in scope with the claims because the claims do not require the argued limitations. Claim 3 does not require that the coating has to be a superhydrophobic coating and with a specific water contact angle. Claim 3 also does not exclude water as part of the coating composition.

With respect to the cited reference Flugge, applicant argues that Flugge appears no objective or intent to provide a superhydrophobic coating on a substrate. Instead, Flugge is directed to making soft tissue paper, namely facial tissue, bath tissue, paper towels, dinner napkins and the like by applying a mixture of a polysiloxane and a compatible, water dispersible or water soluble synthetic resin binder to the tissue paper in a variety of ways. Applicant also argues that Applicants apply their material in monomeric form, contrary to Flugge which applies a polysiloxane (not to mention the water dispersible or water soluble synthetic resin binder).

Again, as stated above with respect to cited reference Barber, claim 3 recites a substrate and a coating formed of a composition comprising at least one compound of formula I. Claim 3 or any of its dependent claims does not require that the formed coating has to be a superhydrophobic coating. Claim 3 also does not exclude the use of water or binders in the composition.

As also stated above, the claimed coating formed of the composition recited in claim 1 is a polysioxane coating, see line 3 on page 4 of the specification of the present application. In other words, the starting material for making the coating is the composition comprising the compound of formula I (the monomer), however, the coating formed from the composition is a final product (after polymerization reaction) of the compound of formula I, and the final product is a polysioxane. As stated in the prior Office action dated 10/13/2010, Flugge discloses the tissue sheet comprising the same polysioxane coating as claimed. Flugge anticipates the claimed product limitations even through the product disclosed by Flugge may be made by a different process or a different starting material.

Conclusion

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling Xu whose telephone number is 571-272-7414. The examiner can normally be reached on 8:00 am- 4:30 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ling Xu
Primary Examiner
Art Unit 1784

/Ling Xu/
Primary Examiner, Art Unit 1784
May 10, 2010